

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (currently amended) An injection moulded product comprising:
a carrier web layer;
a circuitry pattern and an integrated circuit on the surface of the carrier web layer;
an intermediate layer having a first and an opposite second surface, the first surface overlying
and bonded to the carrier web; and
an injection moulded ~~layer attached body which has been attached by an~~ to the second surface
of the intermediate layer, the intermediate layer between the carrier web layer and the injection
moulded layer, and the intermediate layer being melted during an injection moulding to attach it to
the injection moulded layer wherein the body has been attached to the injection moulded product by
an intermediate layer attached to the body prior to the injection moulding.
2. (currently amended) The product according to claim 1, wherein the intermediate layer is
a thermoplastic adhesive bonding film which has been melted during an injection moulding to adhere
to the injection moulded layer.
3. (currently amended) The product according to claim 1, wherein the intermediate layer is
an extruded thermoplastic film which has been melted during an injection moulding to adhere to the
injection moulded layer.
4. (currently amended) The product according to claim 1, 2 or 3 wherein the carrier web
layer, circuitry pattern, an integrated circuit on a chip and the intermediate layer comprise body is
a smart card blank ~~including a circuitry pattern (5) and an integrated circuit on a chip (4).~~
5. (currently amended) The product according to claim 4, wherein the injection moulded
product is a smart card ~~comprising at least one layer (3) formed by injection moulding, the injection~~
~~mould layer being attached to the smart card blank by the thermoplastic adhesive bonding film.~~

6-9. (cancel)

10. (currently amended) A smart card ~~blank~~ comprising:

a carrier web layer;

~~a substrate including~~ a circuitry pattern; ~~and~~

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer;

an intermediate layer overlying the surface of the carrier web with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the intermediate layer which is between the injection moulded layer and the carrier web layer, the intermediate layer having been melted during an injection moulding to bond the carrier web layer to the injection molded layer and to at least one side of the substrate has been attached an intermediate layer, wherein the intermediate layer is a thermoplastic bonding film.

11. (currently amended) A smart card ~~blank~~ according to claim 10 wherein the intermediate thermoplastic adhesive bonding layer film is a polyurethane based composition film, or a composition film based on modified polyolefin.

12. (cancel)

13. (new) The injection moulded product according to claim 1 wherein the intermediate layer is selected from the group consisting of polyolefin, polyurethane and polyester.

14. (new) The injection moulded product according to claim 1 wherein the carrier web layer is a film selected from the group consisting of polyester and biaxially oriented polypropylene.

15. (new) The smart card according to claim 10 wherein the intermediate layer is selected from the group consisting of polyolefin, polyurethane and polyester.

16. (new) The smart card according to claims 10 or 15 wherein the carrier web layer is a film selected from the group consisting of polyester and biaxially oriented polypropylene.

17. (new) The smart card according to claim 10 wherein the intermediate layer is a thermoplastic adhesive bonding film which has been melted during an injection moulding to attach it to the injection moulded layer.

18. (new) The smart card according to claim 10 wherein the intermediate layer is an extruded thermoplastic film which has been melted during an injection moulding to attach it to the injection moulded layer .

19. (new) An injection moulded radio frequency identification circuit product comprising:
a carrier film substrate;
a circuitry pattern and an integrated circuit on the surface of the carrier film substrate;
an intermediate layer over and under the carrier film substrate, each intermediate layer selected from the group consisting of a melted thermoplastic extruded layer and a melted thermoplastic adhesive bonding film; and
an injection moulded body overlying and attached to the intermediate layers, the intermediate layers between the carrier web layer and the injection molded body, and the intermediate layers having been melted to bond the carrier film substrate to the injection moulded body.

20. (new) The injection moulded radio frequency identification circuit product according to claim 19 wherein the intermediate layers are melted thermoplastic extruded films which are melted during an injection moulding of the injection moulded body, the melting forming the intermediate layers which adhere the injection moulded body to the carrier film substrate.

21. (new) The injection moulded radio frequency identification circuit product according to claim 19 wherein the intermediate layers are melted thermoplastic adhesive bonding films which are melted during an injection moulding of the injection moulded body, the thermoplastic adhesive bonding films selected from the group consisting of polyolefin, polyurethane and polyester.

22. (new) The injection moulded radio frequency identification circuit product according to claims 19, 20 or 21 wherein the carrier film substrate is a film selected from the group consisting of polyester and biaxially oriented polypropylene.

23. (new) A smart card comprising:
a carrier web layer;
a circuitry pattern;
an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer;
an intermediate layer overlying the surface of the carrier web with the circuitry pattern; and
an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the intermediate layer which is between the injection moulded layer and the carrier web layer, the intermediate layer having been an extruded thermoplastic film extruded over the carrier web layer and then melted to bond the carrier web layer to the injection molded layer during an injection moulding of the injection moulded layer.

24. (new) The smart card according to claim 23 the carrier web layer is a film selected from the group consisting of polyester and biaxially oriented polypropylene.

25. (new) An injection moulded product comprising:
a carrier web layer;
a circuitry pattern;
an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer;
a melted thermoplastic adhesive bonding film, the melted film overlying the surface of the carrier web with the circuitry pattern; and
an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the melted thermoplastic adhesive bonding film, the melted thermoplastic adhesive bonding film between the injection moulded layer and the carrier web layer, the melted thermoplastic adhesive bonding film melted during the injection moulding of the injection moulded layer to bond the carrier web layer to the injection molded layer.

26. (new) The injection moulded product according to claim 24 wherein the melted thermoplastic adhesive bonding film is selected from the group consisting of polyolefin, polyurethane and polyester.

27. (new) The injection moulded product according to claim 26 the carrier web layer is a film selected from the group consisting of polyester and biaxially oriented polypropylene.

28. (new) An injection moulded product comprising:
a carrier web layer selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern;

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer;

a melted thermoplastic adhesive bonding film selected from the group consisting of polyolefin, polyurethane and polyester, the melted film overlying the surface of the carrier web with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the melted thermoplastic adhesive bonding film, the melted thermoplastic adhesive bonding film between the injection moulded layer and the carrier web layer, the melted thermoplastic adhesive bonding film melted during the injection moulding of the injection moulded layer to bond the carrier web layer to the injection molded layer.

29. (new) The product according to claim 28, wherein the injection moulded product is a smart card.